

consumption, and remaining moisture content values. The following data should be measured and recorded for each wash load during the test period: wash cycle selected, the mode of the clothes washer (adaptive or manual), clothes load dry weight (measured after the clothes washer and clothes dryer cycles are completed) in pounds, and type of articles in the clothes load (e.g., cottons, linens, permanent press). The wash loads used in calculating the in-home percentage split between adaptive and manual cycle usage should be only those wash loads which conform to the definition of the energy test cycle.

Calculate:

T=The total number of energy test cycles run during the field test

T_a=The total number of adaptive control energy test cycles

T_m=The total number of manual control energy test cycles

The percentage weighting factors:

P_a=(T_a/T)×100 (the percentage weighting for adaptive control selection)

P_m=(T_m/T)×100 (the percentage weighting for manual control selection)

Energy consumption (HE_T, ME_T, and DE) and water consumption (Q_T), values calculated in section 4 for the manual and adaptive modes, should be combined using P_a and P_m as the weighting factors.

[62 FR 45508, Aug. 27, 1997; 63 FR 16669, Apr. 6, 1998, as amended at 66 FR 3330, Jan. 12, 2001; 68 FR 62204, Oct. 31, 2003; 69 FR 18803, Apr. 9, 2004]

APPENDIXES K–L TO SUBPART B OF PART 430 [RESERVED]

APPENDIX M TO SUBPART B OF PART 430—UNIFORM TEST METHOD FOR MEASURING THE ENERGY CONSUMPTION OF CENTRAL AIR CONDITIONERS AND HEAT PUMPS

1. DEFINITIONS

2. TESTING CONDITIONS

2.1 Test room requirements.

2.2 Test unit installation requirements.

2.2.1 Defrost control settings.

2.2.2 Special requirements for units having a multiple-speed outdoor fan.

2.2.3 Special requirements for multi-split air conditioners and heat pumps, and systems composed of multiple mini-split units (outdoor units located side-by-side) that would normally operate using two or more indoor thermostats.

2.2.4 Wet-bulb temperature requirements for the air entering the indoor and outdoor coils.

2.2.4.1 Cooling mode tests.

2.2.4.2 Heating mode tests.

2.2.5 Additional refrigerant charging requirements.

2.3 Indoor air volume rates.

2.3.1 Cooling tests.

2.3.2 Heating tests.

2.4 Indoor coil inlet and outlet duct connections.

2.4.1 Outlet plenum for the indoor unit.

2.4.2 Inlet plenum for the indoor unit.

2.5 Indoor coil air property measurements and air damper box applications.

2.5.1 Test set-up on the inlet side of the indoor coil: For cases where the inlet damper box is installed.

2.5.1.1 If the section 2.4.2 inlet plenum is installed.

2.5.1.2 If the section 2.4.2 inlet plenum is not installed.

2.5.2 Test set-up on the inlet side of the indoor unit: For cases where no inlet damper box is installed.

2.5.3 Indoor coil static pressure difference measurement.

2.5.4 Test set-up on the outlet side of the indoor coil.

2.5.4.1 Outlet air damper box placement and requirements.

2.5.4.2 Procedures to minimize temperature maldistribution.

2.5.5 Dry bulb temperature measurement.

2.5.6 Water vapor content measurement.

2.5.7 Air damper box performance requirements.

2.6 Airflow measuring apparatus.

2.7 Electrical voltage supply.

2.8 Electrical power and energy measurements.

2.9 Time measurements.

2.10 Test apparatus for the secondary space conditioning capacity measurement.

2.10.1 Outdoor Air Enthalpy Method.

2.10.2 Compressor Calibration Method.

2.10.3 Refrigerant Enthalpy Method.

2.11 Measurement of test room ambient conditions.

2.12 Measurement of indoor fan speed.

2.13 Measurement of barometric pressure.

3. TESTING PROCEDURES

3.1 General Requirements.

3.1.1 Primary and secondary test methods.

3.1.2 Manufacturer-provided equipment overrides.

3.1.3 Airflow through the outdoor coil.

3.1.4 Airflow through the indoor coil.

3.1.4.1 Cooling Certified Air Volume Rate.

3.1.4.1.1 Cooling Certified Air Volume Rate for Ducted Units.

3.1.4.1.2 Cooling Certified Air Volume Rate for Non-ducted Units.

3.1.4.2 Cooling Minimum Air Volume Rate.

3.1.4.3 Cooling Intermediate Air Volume Rate.

3.1.4.4 Heating Certified Air Volume Rate.